TEST REPORT OF PHYSICAL PROPERTIES OF CEMENT - 53 Grade

Lab ID	:	**CP-2017-06-22-03** **Date: 24-06-2017**
Customer	:	Assistant Executive Engineer, Shettyhalli Sub Division, BBMP, Bangalore.
Address	:	Shettyhalli Sub Division, BBMP, Bangalore.
Project Name	:	Improvememts to roads & drains at kammagondanahalli Jarakabande kaval slum near church in ward No.12 in Shettyhalli Sub Division.
Agency	:	Technical manager (West), karnataka Rural Infrastructure Development Limited, Project Implementation unit, No.280, 59th Cross, 17th 'C' main Road, 3rd 'Y' Block, Rajajinagar, Bangalore-560 010
Customer's Reference	:	BBMP/EE/DD/WO/119/2017-18
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	22-06-17
Sample ID No	:	2017-06-22-03/01
Sample Type	:	Zuari 53grade
Reference to BIS codes	:	IS 12269 : 2013, 53 Grade Ordinary Portland cement Specification , IS 4031 (Part 1,2 3,4,5, 6,11):1988 IS 4031 Part 1 DETERMINATION OF FINENESS BY DRY SIEVING, Clause 4.4 IS 4031 Part 2, Determination of Fineness by Blaine Air Permeability Method, Clause 5 IS 4031 Part 3, Determination of Soundness, Clause 5,Clause 6 IS 4031 Part 4, Determination of Consistency of Standard Cement Paste, Clause 5 IS 4031 Part 5, Determination of Initial & Final Setting Time, Clause 5 IS 4031 Part 11,DETERMINATION OF DENSITY , Clause 6
Date of test	:	23-06-17

Sl.No.	Physical properties	Results	Requirement as per IS 12269: 2013
1	Fineness by dry sieving (%)	2.92	–
2	Finess by Air permeablity method (m^2/kg, Min)	289.3	225m^2/kg, Min
3	Density (gm/cc)	3.19	–
4	Standard Consistency (%)	28.5%	Not specified
5	Initial Setting time	145 minutes	Not less than 30 minutes
6	Final Setting time	255 minutes	Not more than 600 minutes
7	Soundness (Le Chatelier's Method)	1.5mm	Not more than 10 mm

Note:
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Prepared by
Harshitha

CIVIL Pro Sig..... Date..... BANGALORE

FOR CIVIL Pro.
R KARTHIK RECHAN
Authorized Signatory
Quality Manager

Page 1/1
****End of Report****

TEST REPORT ON COARSE AGGREGATES

Lab ID	:	**CP-2017-06-22-03** **Date: 24-06-2017**
Customer	:	Assistant Executive Engineer, Shettyhalli Sub Division, BBMP, Bangalore.
Address	:	Shettyhalli Sub Division, BBMP, Bangalore.
Project Name	:	Improvememts to roads & drains at kammagondanahalli Jarakabande kaval slum near church in ward No.12 in Shettyhalli Sub Division.
Agency	:	Technical manager (West), karnataka Rural Infrastructure Development Limited, Project Implementation unit, No.280, 59th Cross, 17th 'C' main Road, 3rd 'Y' Block, Rajajinagar, Bangalore-560 010
Customer Reference	:	BBMP/EE/DD/WO/119/2017-18
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	22-06-17
Sample ID No	:	2017-06-22-03/02
Sample Type/ Size	:	20mm down size coarse aggregate
Reference to BIS codes	:	IS: 383:2016 (Specification for Coarse and fine Aggregates) IS: 2386 :1963(Part - 1,3,4) RA2011 IS 2386 Part 1: Particle Size and Shape IS 2386 Part 3: Specific gravity, Density, Voids,Water Absorption IS 2386 Part 4: Mechanical Properties
Date of test	:	22-06-17

SIEVE ANALYSIS (PARTICLE SIZE DISTRIBUTION) OF 20MM DOWN COARSE AGGREGATE:

Total weight taken : **5000** **grams**

Sample No.	Sieve No.	Weight Retained in gms	Cumulative Weight Retained in gms	% Cumulative Weight Retained	% Passing	Required as per IS 383:2016
1	40 mm	0	0	0	100	100
2	20 mm	376	376	7.5	92.5	90-100
3	10 mm	2147	2523	50.5	49.5	25-55
4	4.75 mm	2278	4801	96.0	4.0	0-10
5	Pan	199	5000	100	0	–

AE -12

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ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆ
ಪಶ್ಚಿಮ ವಲಯ, ರಾಜಾಜಿನಗರ, ಬೆಂಗಳೂರು

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M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

TEST REPORT ON COARSE AGGREGATES

Lab ID : **CP-2017-06-22-03** **Date: 24-06-2017**

Sample ID No : 2017-06-22-03/02

PHYSICAL PROPERTIES

Sl.no	Tests	Result	Requirements as per IS:383-2016
1	Flakiness Index(%)	11.4	Combined Flakiness & Elongation Index Shall not Exceed 40% for Uncrushed & Crushed Aggregate
2	Elongation Index(%)	12.8	
3	Specific Gravity	2.61	–
4	Bulk Density(Loose) (Kg/l)	1.51	–
5	Bulk Density(Compacted) (Kg/l)	1.57	–
6	Water Absorption(%)	0.24	–
7	Aggregate crushing Value(%)	23.1	Max 30% for Aggregates to be used in concrete for wearing Surface, In case Aggregate Crushing Value Exceeds 30% then the test for ten percent fines should be conducted for Aggregates to be used in concrete other than for wearing Surface.
8	Aggregate Impact Value(%)	20.5	30% for Aggregates to be used in concrete for wearing Surface, 45% for Aggregates to be used in concrete other than for wearing Surface.

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Prepared by
Harshitha

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R KARTHIK RECHAN
Authorized Signature
Quality Manager

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ಎಸ್.ಎಂ. ರಸ್ತೆ, ರವೀಂದ್ರನಗರ, ಬೆಂಗಳೂರು

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Certificate No.: T- 4358

TEST REPORT OF FINE AGGREGATE

Lab ID	:	**CP-2017-06-22-03**
Customer	:	Assistant Executive Engineer, Shettyhalli Sub Division, BBMP, Bangalore.
Address	:	Shettyhalli Sub Division, BBMP, Bangalore.
Project Name	:	Improvememts to roads & drains at kammagondanahalli Jarakabande kaval slum near church in ward No.12 in Shettyhalli Sub Division.
Agency	:	Technical manager (West), karnataka Rural Infrastructure Development Limited, Project Implementation unit, No.280, 59th Cross, 17th 'C' main Road, 3rd 'Y' Block, Rajajinagar, Bangalore-560 010
Customer's Reference	:	BBMP/EE/DD/WO/119/2017-18
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	22-06-17
Sample ID No	:	2017-06-22-03/03
Sample Type	:	Fine Aggregate
Reference to BIS codes	:	IS 383 : 2016 (Specification for Coarse and fine Aggregates) IS: 2386 :1963(Part - 1, 3) RA2012 IS 2386 Part 1: Particle Size and Shape IS 2386 Part 3: Specific gravity, Density, Voids,Water Absorption
Date of test	:	22-06-17
Total weight taken	:	1000 grams

Date: 24-06-17

Sl.no	Sieve Size	Weight Retained (gms)	Cumulative Weight Retained (gms)	% Cumulative Weight Retained	% Passing	Requirement as per IS 383:2016			
						Grading Zone I	Grading Zone II	Grading Zone III	Grading Zone IV
1	10 mm	0	0	0	100	100	100	100	100
2	4.75 mm	78	78	7.8	92.2	90-100	90-100	90-100	95-100
3	2.36 mm	154	232	23.2	76.8	60-95	75-100	85-100	95-100
4	1.18 mm	210	442	44.2	55.8	30-70	55-90	75-100	90-100
5	600 micron	191	633	63.3	36.7	15-34	35-59	60-79	80-100
6	300 micron	201	834	83.4	16.6	5-20	8-30	12-40	15-50
7	150 micron	148	982	98.2	1.8	0-10	0-10	0-10	0-15
8	Pan	18	1000	100	0	---	---	---	---

Result :The tested Sample Conforms to Grading Zone II

AE-12
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ಬೃಹತ್ ಬೆಂಗಳೂರು [illegible]
ಎಸ್.ಎಂ. ರಸ್ತೆ, ರಾಜಾಜಿನಗರ, ಬೆಂಗಳೂರು

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TEST REPORT OF FINE AGGREGATE

Lab ID : **CP-2017-06-22-03** **Date: 24-06-17**

Sample ID No : 2017-06-22-03/03

PHYSICAL PROPERTIES

Sl.no	Tests	Result	Requirements as per IS 383:2016
1	Water Absorption(%)	1.74	–
2	Specific Gravity	2.57	–
3	Material finer than 75 micron(%)	1.8	Uncrushed fine Aggregate Max 3%, Crushed Fine aggregate Max 15%, Mixed Fine aggregate Max 12%, Manufactured Fine aggregate Max 10%

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Prepared by
Harshitha

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CIVIL Pro Sig..... Date..... BANGALORE
R KARTHIK RECHAN
Authorized Signatory
Quality Manager

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ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
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TEST REPORT OF FINE AGGREGATE

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Agency	:	Technical manager (West), karnataka Rural Infrastructure Development Limited, Project Implementation unit, No.280, 59th Cross, 17th 'C' main Road, 3rd 'Y' Block, Rajajinagar, Bangalore-560 010
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Date of Receipt	:	22-06-17
Sample ID No	:	2017-06-22-03/03
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7	150 micron	148	982	98.2	1.8	0-10	0-10	0-10	0-15
8	Pan	18	1000	100	0	---	---	---	---

Result :The tested Sample Conforms to Grading Zone II

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